Enhancing Hit Identification in *Mycobacterium tuberculosis* Drug Discovery Using Dual-Event Bayesian Models

Sean Ekins^{1, 2*}, Robert C. Reynolds^{3,4}, Scott G. Franzblau^{5,}, Baojie Wan⁵, Joel S. Freundlich^{6,7} and Barry A. Bunin¹

¹Collaborative Drug Discovery, 1633 Bayshore Highway, Suite 342, Burlingame, CA 94010, USA.

²Collaborations in Chemistry, 5616 Hilltop Needmore Road, Fuquay-Varina, NC 27526, USA.

³Southern Research Institute, 2000 Ninth Avenue South, Birmingham, AL 35205, USA. ⁴Current address: University of Alabama at Birmingham, College of Arts and Sciences, Department of Chemistry, 1530 3rd Avenue South, Birmingham, Alabama 35294-1240, USA.

⁵ Institute for Tuberculosis Research, University of Illinois at Chicago, Chicago, IL 60607, USA.

⁶Department of Medicine, Center for Emerging and Reemerging Pathogens, UMDNJ – New Jersey Medical School, 185 South Orange Avenue Newark, NJ 07103, USA.

⁷Department of Pharmacology & Physiology, UMDNJ – New Jersey Medical School, 185 South Orange Avenue Newark, NJ 07103, USA.

*To whom correspondence should be addressed. (e-mail: ekinssean@yahoo.com)

Running Head: Dual Event Bayesian Models

Table S5. Whole cell screening hit rates at Institute for Tuberculosis Research.

Provider	Compound	Number of	Inhibitor	Readout	Hit rate (%) at
	Library	compounds	concentration		90% Inhibition
ChemBridge	Novacore	50,000	30 μΜ	Luminescence (LuxAB)	4.55
Asinex	Diverse	59,760	50 μΜ	Luminescence (LuxAB)	1.91
ASDI		6,811	30 μΜ	Luminescence (LuxAB)	2.73
Prestwick		1,120	20 μg/ml	Luminescence (ATP)	20.6
				Fluorescence (MABA)	16.07
MRCT		100,000	10 μΜ	Luminescence (LuxABCDE)	0.67